Application No.: 09/831,915

Reply to the Office Action of: July 27, 2005

## **REMARKS**

Applicants wish to thank Examiner Metzmaier for the helpful and courteous discussion with Applicants' Representative on September 7, 2005. The prior art of record was discussed. The following is intended to expand upon this discussion.

The present invention as set forth in amended Claim 1 relates to a dried hydrogel, prepared by

polymerizing an olefinically unsaturated carboxylic acid or its salts in a polymerization reaction mixture;

admixing the polymerization reaction mixture, before, during or after the polymerization and before drying, with an alkali metal silicate of the general formula I

$$M_2O \times n SiO_2$$
 (I),

wherein M is an alkali metal and n is from 0.5 to 4; thereby obtaining a hydrogel containing a polymer; and drying said hydrogel at an elevated temperature, to obtain said dried hydrogel.

It is an object of the present invention to provide hydrogels capable of absorbing aqueous fluids. See page 2, lines 26 and 27 of the specification. See also new Claims 19 and 20.

<u>US 5,075,371</u> and <u>US 4,707,290</u> fail to disclose or suggest a dried hydrogel as claimed.

US 5,075,371 discloses highly cross-linked polymers for use in liquid gas chromatography. US 5,075,371 further discloses the use of 2 to 30 wt.% cross-linker (column 6, lines 31 to 41) and does not mention the use of olefinically unsaturated carboxylic acids or its salts as source for these polymers (column 1, lines 43 to 55).

Application No.: 09/831,915

Reply to the Office Action of: July 27, 2005

The polymers of the present invention are water-swellable and therefore low cross-linked (highly cross-linked polymers cannot swell anymore). Thus, the amended claims are not anticipated by or obvious over <u>US 5,075,371</u>.

<u>US 4,707,290</u> discloses a granular adsorbent, comprising water-soluble homopolymers (column 3, lines 35 to 41). In the present invention water-insoluble carboxylic acid polymers are used (specification, page 1, lines 10 and 11).

Further, regarding **new Claim 21**, as shown by the examples the polymers according to the invention are cross-linked copolymers and not homopolymers. In all examples acrylic acid was copolymerized with monomers that have at least two olefinically unsaturated groups: tetraallyoxethane (example 1 and comparative example 1), pentaerythrol triallyether (examples 2 to 15 and 21 to 25 and comparative examples 2 to 4a, 20 and 25), allyl methacrylate (comparative example 16 and inventive examples 17 to 19). Due to the crosslinking, the water-absorbent copolymers are water-insoluble and have high molecular weights. Thus, the amended claims are not anticipated by or obvious over <u>US 4,707,290</u>.

Therefore, the rejection of Claims 1-3, 6, 7, 10-14, 16 and 18 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over <u>US 5,075,371</u>, the rejection of Claims 4-5 and 17 under 35 U.S.C. § 103(a) as being unpatentable <u>US 5,075,371</u> and the rejection of Claims 1-4, 6, 7, 10-16 and 18 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over <u>US 4,707,290</u> are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

Application No.: 09/831,915

Reply to the Office Action of: July 27, 2005

The objection to the specification was previously discussed on October 5, 2004. The Examiner had indicated that deleting Claims 8 and 9 may also remove the objection to the specification.

Applicants made a statement regarding the common ownership of the claims.

See Amendment filed October 29, 2004, page 11, second full paragraph.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

Kirsten A. Grueheberg, Ph. C. Registration No.: 47,297

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C. Norman F. Oblon

Customer Number 22850

Tel: (703) 413-3000 Fax: (703) 413 -2220

NFO:KAG: